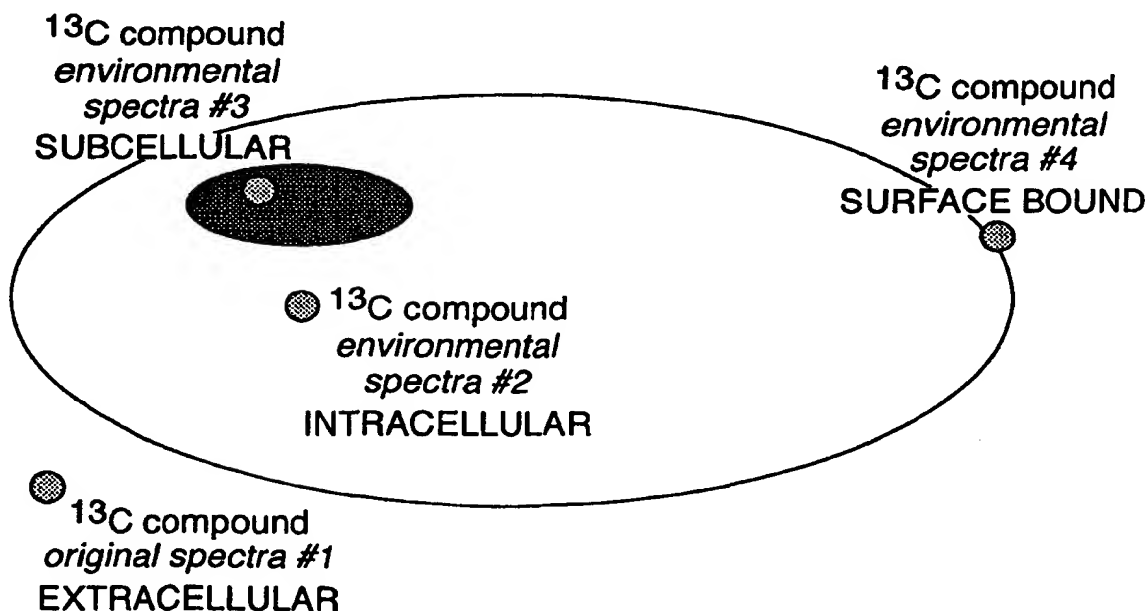




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>G01R 33/465, G01N 33/48</b>		A1	(11) International Publication Number: <b>WO 00/40988</b>
			(43) International Publication Date: 13 July 2000 (13.07.00)
(21) International Application Number: PCT/GB99/04410		(74) Agent: ROLLINS, Anthony, John; Nycomed Amersham plc, Amersham Laboratories, White Lion Road, Amersham, Bucks HP7 9LL (GB).	
(22) International Filing Date: 23 December 1999 (23.12.99)			
(30) Priority Data: 9828852.5 30 December 1998 (30.12.98) GB 9918096.0 2 August 1999 (02.08.99) GB		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(71) Applicant (for all designated States except US): NYCOMED AMERSHAM PLC [GB/GB]; Amersham Laboratories, White Lion Road, Amersham, Bucks HP7 9LL (GB).			
(72) Inventors; and			
(75) Inventors/Applicants (for US only): KNOX, Peter [GB/GB]; "Choppings", 34 Kings Road, Chalfont St. Giles, Bucks HP8 4HS (GB). COOK, Neil [GB/GB]; Tutshill Lodge, Beachley Road, Tutshill, Chepstow NP6 7EG (GB). GOL- MAN, Klaes [DK/SE]; Nycomed Innovation AB, Ideon Malmo, Per Albin Hanssons vag 41, S-205 12 Malmo (SE). JOHANNESSON, Haukur [IS/SE]; Nycomed Innova- tion AB, Ideon Malmo, Per Albin Hanssons vag 41, S-205 12 Malmo (SE). AXELSSON, Oksar [SE/SE]; Nycomed Innovation AB, Ideon Malmo, Per Albin Hanssons vag 41, S-205 12 Malmo (SE). ARDENKJAER-LARSEN, Jan, Henrik [DK/SE]; Nycomed Innovation AB, Ideon Malmo, Per Albin Hanssons vag 41, S-205 12 Malmo (SE).		Published With international search report.	

(54) Title: NMR SPECTROSCOPIC IN VITRO ASSAY USING HYPERPOLARIZATION



## (57) Abstract

An *in vitro* assay method which comprises the use of an assay reagent containing at least one NMR active nucleus, and hyperpolarising at least one NMR active nucleus of the assay reagent; and analysing the assay reagent and/or the assay by NMR spectroscopy and/or NMR imaging. The assay reagent may contain an artificially high concentration of an NMR active nucleus.